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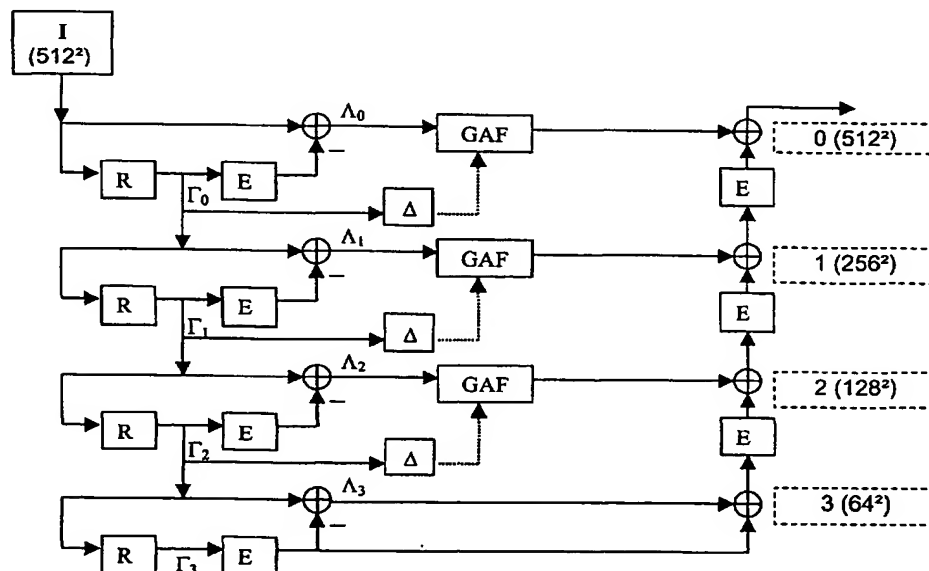
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[Continued on next page]

(54) Title: MULTI-RESOLUTION PROCESSING OF IMAGE STRIPS



(57) Abstract: The invention relates to a method of multi-resolution with gradient-adaptive filtering (MRGAF) of X-ray images in real time. For an image strip of 2K adjacent rows, a resolution into a Laplacian pyramid ( $L_0, \dots, L_3$ ) and a Gaussian pyramid ( $G_0, \dots, G_3$ ) is carried out up to the K-th stage. By limiting a processing operation to such a strip, it is possible to keep all relevant data ready in a local memory with rapid access (cache). A further acceleration compared to the conventional algorithm is achieved by calculating the gradient ( $D$ ) from the Gaussian pyramid representations. By virtue of these and other optimization measures, it is possible to increase a multi-resolution with gradient-adaptive filtering to a processing rate of more than thirty ( $768 \times 564$ ) images per second.

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EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

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Y	US 4 965 751 A (COLEMAN MARK D ET AL) 23 October 1990 (1990-10-23) abstract column 1, line 23 - line 45 column 3, line 7 - line 47	1
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☒ Further documents are listed in the continuation of box C.

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